

**COMPOSITE FUSELAGE MACHINE**

**ABSTRACT OF THE DISCLOSURE**

- 5           A device for automated composite lay up of a part to be manufactured -  
such as a large aircraft fuselage - includes a mandrel having a vertical axis and  
an interior mandrel surface that conforms to an outside mold line of the part. A  
vertical movement shaft is disposed inside the mandrel. A platform is  
supported, moved up and down, and rotated on the vertical movement shaft.
- 10       One or more arm mechanisms are attached to the platform. One or more  
material delivery heads are supported by the arm mechanisms, and the arm  
mechanisms moves and positions the material delivery heads relative to the  
interior mandrel surface so that composite material is delivered directly to the  
outside mold line on the interior mandrel surface.